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Kickstart a Design System Revolution with Storybook

Konstantin Tieber

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xkons.de

What is Storybook?

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- Development environment for UI components
- Interactive catalogue for UI components
- Supports all relevant frameworks and more
- Comes with lots of handy addons
  - Knobs, Accessibility, Actions, Backgrounds, Viewport, Themes...

Addons Demo

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Who needs Storybook?

Storybook Setup

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- Framework specific guides
  https://storybook.js.org/docs/guides/guide-angular/

- Setup: npx -p @storybook/cli sb init --type angular

- Start: npm run storybook

Writing Stories

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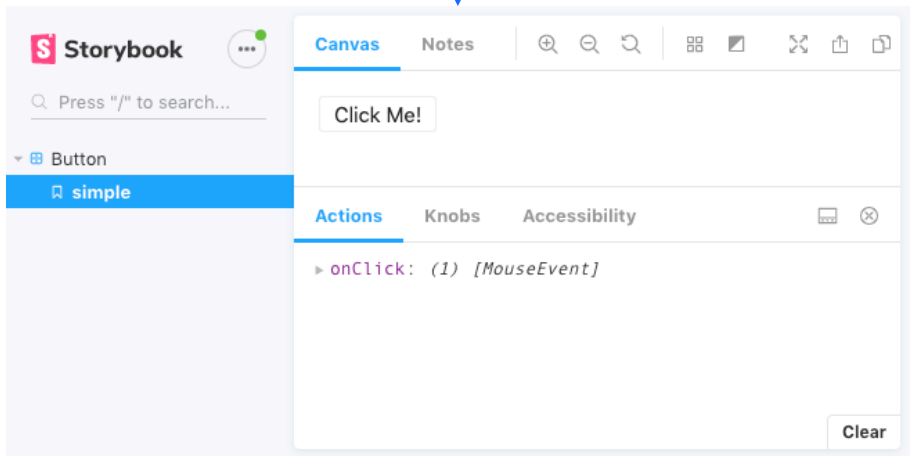
```
import { BrowserAnimationsModule } from '@angular/platform-browser/animations';
import { moduleMetadata, storiesOf } from '@storybook/angular';
import { ButtonComponent } from 'lx-core-ui/components';
import { action } from '@storybook/addon-actions';

storiesOf('Button', module)
  .addDecorator(
    moduleMetadata({
      imports: [BrowserAnimationsModule]
    })
  )
  .add('simple', () => ({
    component: ButtonComponent,
    template: `<button [label]="label" (click)="onClick()"></button>`,
    props: {
      label: 'Click Me!',
      onClick: action('onClick')
    }
  }));
```

```
.
├── src
│   └── components
│       └── button.js
└── stories
    └── button.stories.js
```



Storybook 5.2 🥳

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Old „storiesOf“ style

```
import { storiesOf } from '@storybook/react';

storiesOf('atoms/Button', module)
  .add('text', () => <Button>Hello</Button>)
  .add('emoji', () => <Button>😀😎👍💯</Button>);
```

New Component Story Format (CSF)

```
export default { title: 'atoms/Button' };

export const text = () => <Button>Hello</Button>;
export const emoji = () => <Button>😀😎👍💯</Button>;
```

Works in any environment that supports ES6 JavaScript!

Quelle: https://medium.com/storybookjs/storybook-5-2-794958b9b111/

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Storybook at LeanIX

Design Process without Storybook

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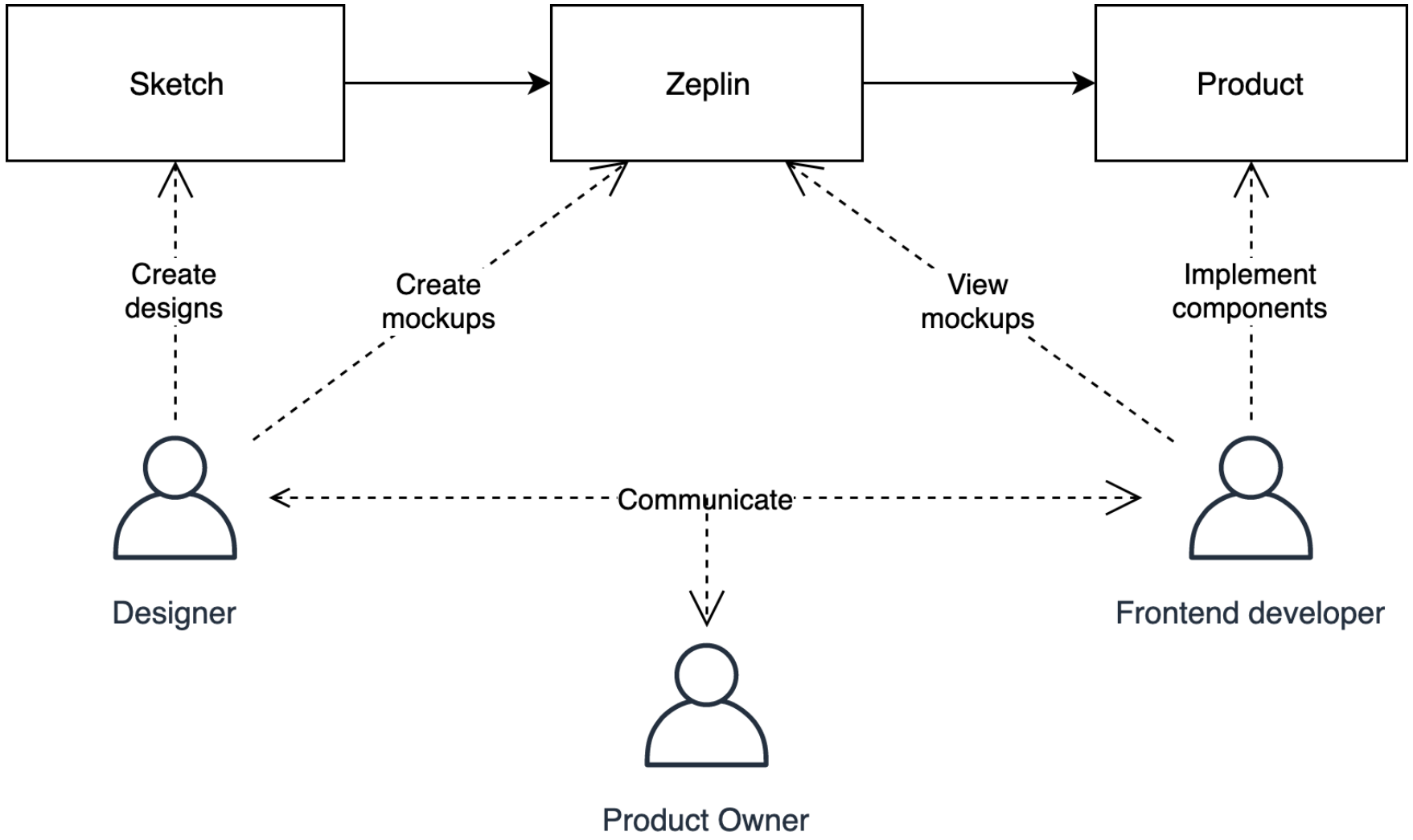

Design Process with Storybook

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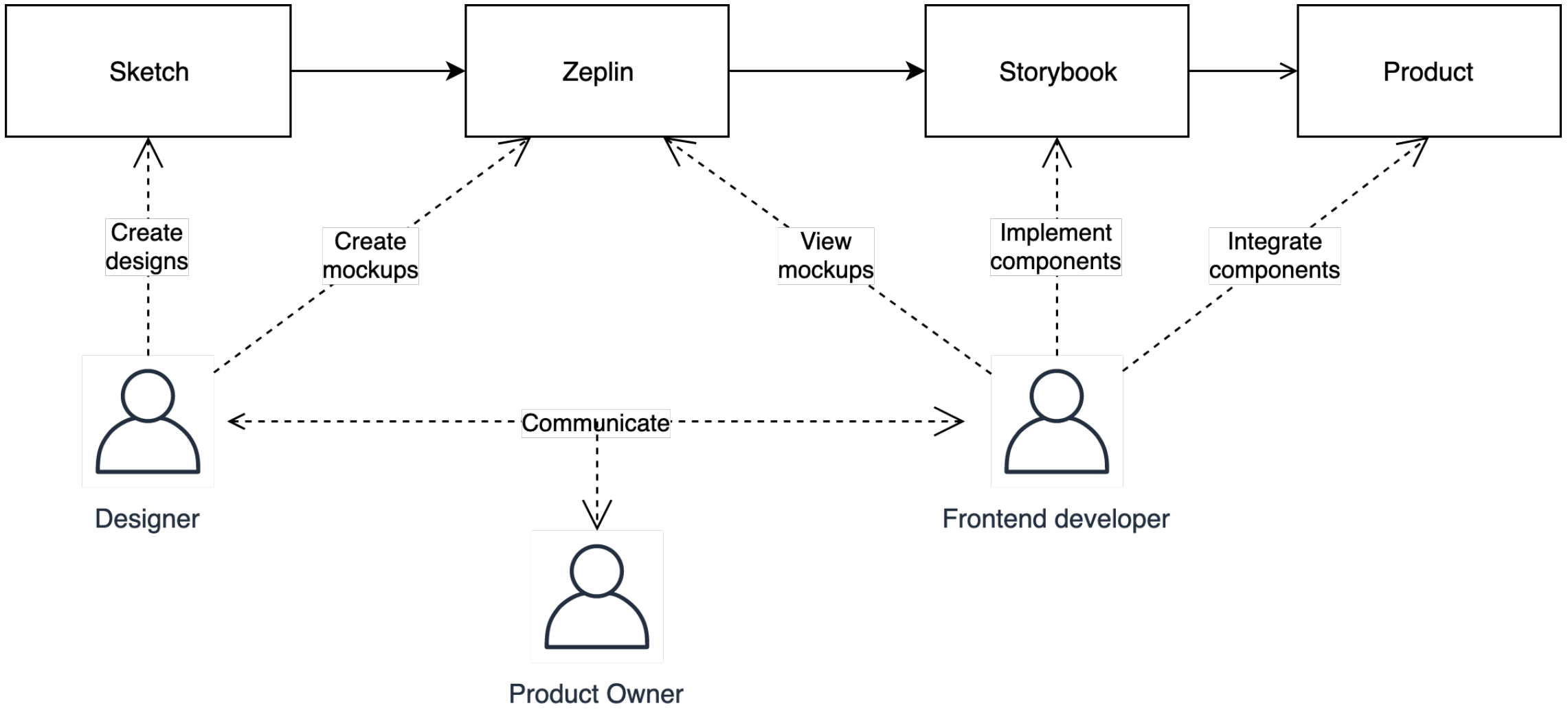

Benefits for Designers

- Test the real components before they've been integrated into the product.
- Catalogue of existing components, their states and usability.
- Convenient playground for discussions and acceptance.

Benefits for Developers

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- Faster rerendering thanks to smallest possible app to render component and Hot Module Replacement
- Makes you think twice about how to structure your Angular modules.
- Encourages writing “dumb“ components.

Dumb / Presentational components

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- are only concerned with the presentation of a component.
  - no API requests
  - don‘t know the Store (“in memory database“ with application state)
  - no state
    - functional components in React
    - onPush changeDetection in Angular (props will only change from the parent)

- receive properties as inputs from so called “smart“ / “container“ parent components.

- are easily reusable.

Presentational Modules

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```
@NgModule({
  declarations: [
    BookmarksListComponent,
    BookmarksListItemComponent,
    BookmarksActiveBookmarkInfoComponent
  ],
  imports: [
    CommonModule,
    LxCoreUIModule,
    LxPopoverModule,
    TranslateModule.forChild()
  ],
  providers: [],
  exports: [
    BookmarksListComponent,
    BookmarksListItemComponent,
    BookmarksActiveBookmarkInfoComponent
  ]
})
export class LxBookmarkUiModule { }
```

- No services
- CoreUI module consists of components that everyone needs, e.g. a loading spinner.
- <Feature>UI module consists of components, that are used for a specific feature.

Mock Services with Injection Tokens in Angular

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```ts
/* ... */
import { InjectionToken } from '@angular/core';

export const BOOKMARK_READER = new InjectionToken<BookmarkReader>('BOOKMARK_READER');

export interface BookmarkReader {
  readBookmark(id: string): Observable<Bookmark>;
}
```

Injection Token definition

```ts
@Injectable()
export class StorybookBookmarkReaderService implements BookmarkReader {
  public readBookmark(id: string) {
    return of(FULL_BOOKMARKS.find(bookmark => bookmark.id === id));
  }
}
```

“Mock“ BookmarkReader for Storybook

```ts
@Component({
  changeDetection: ChangeDetectionStrategy.OnPush,
  /* ... */
})
export class BookmarksListItemComponent {
  /* ... */
  constructor(
    @Inject(DATE_FORMATS) private dateFormats: DateFormatsProvider,
    @Inject(BOOKMARK_READER) private bookmarkReader: BookmarkReader,
    /* ... */
  ) { }
  /* ... */
}
```

Component depends on BOOKMARK_READER implementation

```ts
storiesOf('Bookmarks|BookmarksList', module)
  .addDecorator(
    moduleMetadata({
      imports: [LxBookmarkUiModule],
      providers: [
        {
          provide: DATE_FORMATS,
          useClass: StorybookDateFormatsService
        },
        {
          provide: BOOKMARK_READER,
          useClass: StorybookBookmarkReaderService
        }
      ]
    })
  .add('list with different bookmarks', () => ({
    component: BookmarksListComponent,
    template: `
      <lx-bookmarks-list
        [activeBookmark]="activeBookmark"
        [bookmarkSuggestions]="bookmarkSuggestions">
      </lx-bookmarks-list>
    `,
    props: {
      activeBookmark: BookmarkHelpers.getBookmark(),
      bookmarkSuggestions: [/* ... */]
    }
  }));
```

Provide Storybook implementation in Angular module

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Drawbacks?

Goal: Design System and Component Library

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- We are using Zeroheight and Storybook to establish a common design language across all designers and frontend developers.
- A set of components, that can be reused in different applications and teams within LeanIX.
- Visual consistency 🌈

Resources

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- https://github.com/storybookjs
- https://storybook.js.org/docs/basics/introduction/

Examples

- https://jetbrains.github.io/ring-ui/master/
- https://storybook-design-system.netlify.com/
- https://airbnb.io/react-dates/

Questions?

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Extra Slides!?

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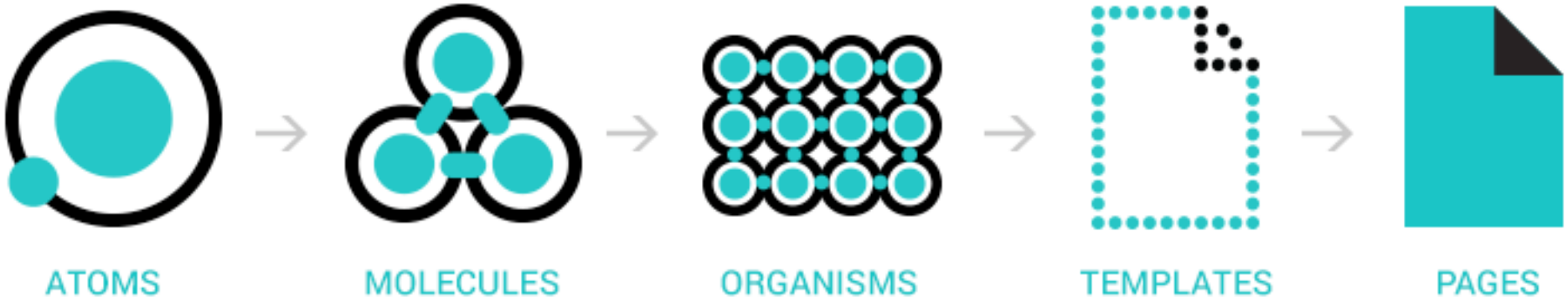
"Storybook is a powerful frontend workshop environment tool that allows teams to design, build, and organize UI components (and even full screens!) without getting tripped up over business logic and plumbing."

Brad Frost
Author of Atomic Design

Atomic Design



Quelle: https://trespuntoscomunicacion.es/blog-diseno-web/atomic-design-ultima-tendencia-en-diseno-web/